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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/957,422	09/20/2001	Takayuki Fujioka	9792909-5242	2711

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EXAMINER
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BRIGGS, NATHANAEL R

ART UNIT	PAPER NUMBER
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2871

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/19/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/957,422

Applicant(s)

FUJIOKA ET AL.

Examiner

Nathanael R. Briggs

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2, and 4-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see page 6, section III, paragraphs 2-3, filed November 2, 2006, with respect to claim 6 have been fully considered and are persuasive. The 35 U.S.C. § 112 rejection of claim 6 in the Office Action of August 2, 2006 has been withdrawn.
2. Applicant's arguments filed November 2, 2006, have been fully considered but they are not persuasive. Regarding claim 1, Applicant alleges that Tsuda fails to teach or suggest forming an uneven surface layer by coating the gently deformed pillar-shaped bodies and covering open flat spaces located between the isolated pillar-shaped bodies with a second resin and minimizing an occurrence of a flat surface area on the substrate. However, Tsuda Figures 5E-H disclose the steps of coating the gently deformed pillar-shaped bodies (32c) and covering open flat spaces located between the isolated pillar-shaped bodies with a second resin (34a), and minimizing (Figure 5H, 34c) an occurrence of a flat surface area on the substrate (37). Although, as Applicant alleges that spin-coating results in uniform flat surfaces (34a), these initially flat surfaces (34a) are melted (column 10, lines 53-58) and gently deformed (34c), thereby minimizing an occurrence of flat surface area on the substrate (37). Therefore, Applicant's arguments are unpersuasive.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2 and 4-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsuda et al. (US 5,936,688).

5. Regarding claim 1, Tsuda discloses a method of manufacturing a diffusing reflector (see figures 2A-E and 5A-H, for instance) having processes of preparing a substrate (31); forming a first resin film having photosensitivity (32a) on said substrate (31); providing gathering of pillar-shaped bodies (32b) isolated from each other through patterning (33) of said resin film (32a) with the photolithography; deforming gently (32c) said pillar-shaped bodies (32b) through a reflow (column 10, lines 8-11); forming an uneven surface layer (37) having the maximum inclination angle of under 12° (see Fig. 2B) by coating said gently deformed pillar-shaped bodies (32c) and covering open flat spaces (34a) located between said isolated pillar-shaped bodies (32b) with a second resin (34a), thereby minimizing an occurrence of a flat surface area on said substrate (37); and forming a metal film (36) on gathering of said gently deformed uneven surface layer (34c). Claim 1 is therefore unpatentable.

6. Regarding claim 2, Tsuda discloses a method of manufacturing a diffusing reflector as claimed in claim 1 (see figures 2A-E and 5A-H, for instance), wherein said maximum inclination angle is about 10° (Fig. 2B). Claim 2 is therefore unpatentable.

7. Regarding claim 4, Tsuba discloses a method of manufacturing a diffusing reflector as claimed in claim 1 (see figures 2A-E and 5A-H, for instance), wherein said reflow process is a heat treatment under the temperature of about 220° C (column 10, lines 12-13). Claim 4 is therefore unpatentable.

8. Regarding claim 5, Tsuba discloses a method of manufacturing a diffusing reflector as claimed in claim 1 (see figures 2A-E and 5A-H, for instance), wherein gathering of polygonal pillar-shaped bodies (32c; column 17, lines 32-36) isolated each other by the divided patterning of said resin film (34a) by said photolithography is provided. Claim 5 is therefore unpatentable.

9. Regarding claim 6, Tsuba discloses a method of manufacturing a diffusing reflector as claimed in claim 5 (see figures 2A-E and 5A-H, for instance), wherein said resin film (34a) is patterned by the divided patterning means so that size of gap between said polygonal pillar-shaped bodies (32c) isolated each other is almost equal to the minimum resolution of photolithography (column 13, lines 33-40). Claim 6 is therefore unpatentable.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathanael R. Briggs whose telephone number is (571) 272-8992. The examiner can normally be reached on 9 AM - 5:30 PM Monday through Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit: 2871

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Nathanael Briggs  
1/12/2007

  
ANDREW SCHECHTER  
PRIMARY EXAMINER